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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,780	06/26/2001	Andreas Bulan	Mo-6268/LcA 34,400	1808

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EXAMINER

BOS, STEVEN J

ART UNIT	PAPER NUMBER
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1754

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DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/891,780

Applicant(s)
Bulan et al

Examiner
Steven Bos

Art Unit
1754



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 30, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

Art Unit: 1754

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "distillation bottoms comprising sulfuric acid, hydrofluoric acid and hexafluoroarsenic acid", does not reasonably provide enablement for "distillation bottoms comprising products selected from the group consisting of sulfuric acid, hydrofluoric acid and hexafluoroarsenic acid". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, a, "the bottom" lack(s) proper antecedent basis in the claim(s).

In claim 1, a, "the bottom" is indefinite as to what this refers to, ie. the bottom of what?

In claim 1, b, "the residue" lack(s) proper antecedent basis in the claim(s).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1754

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Smith

'241. See cols. 5-8 and the examples.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '241 in view of the admitted prior art on instant pg. 3, lines 4-7.

Smith teaches the instantly claimed process wherein bottoms are evaporated at 50-150°C and then treated with calcium hydroxide or calcium oxide (see col. 5-8). The instant admitted prior art states that commercial arsenic containing hydrogen fluoride has water, sulfuric acid and sulfur dioxide contents which overlap those instantly claimed and thus would have been obvious.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, In re Malagari, 182 USPQ 549.

Art Unit: 1754

Applicant's arguments filed January 30, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., removing arsenic compounds from the distillation bottoms obtained in the distillation of arsenic containing hydrogen fluoride by concentrating the distillation bottoms at a low temperature) are not recited in the rejected claim(s) which do not now require same but rather are drawn to any distillation bottoms. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Smith teaches a temperature range for process steps that are different from those of the claimed process, ie. concentrating the hexafluoroarsenic acid or salts thereof.

However Smith concentrates by evaporation a mixture including hexafluoroarsenic acid or salt and hydrofluoric acid and sulfuric acid which is the same mixture instantly recited in claim 4 as the composition of the distillation bottoms which are concentrated as required by instant claim 1. Therefore the taught temperature range is for the identical process steps as are instantly claimed.

Applicant argues that Smith does not teach a lower temperature with sufficient specificity.

However Smith specifically teaches a temperature of "about 50°C".

Art Unit: 1754

Applicant points to Ex parte Lee for the requirement that the prior art must teach the temperature range with sufficient specificity.

However Smith specifically teaches a temperature of "about 50°C" at col. 6, line 12 and in the claims. Furthermore, there is no evidence of unexpected results using the lower temperature range as is required by Ex parte Lee.

The instantly claimed process does not exclude the taught aqueous mixture nor hydrolysis of hexafluoroarsenic acid or salts thereof to arsenic acid or a salt thereof.

Applicant argues that Smith teaches heating at a temperature of 50-150°C to remove all of the hydrogen fluoride in a subsequent step.

However Smith teaches at col. 6, lines 8-13 that part of the hydrogen fluoride is removed while heating at the taught temperature range. This is as required by the instant claims.

The instant claims do not exclude the taught use of an inert gas, nor the addition of a catalyst.

Applicant argues that the claim process differs in that it employs calcium oxide or calcium hydroxide to convert the entire bottoms product into a crumbly disposable product.

However Smith teaches either calcium oxide or calcium hydroxide in order to form a calcium salt of the arsenic.

Applicant argues that Smith teaches at col. 7, lines 55-56 that if the reaction temperature is below 75°C the amount of hydrogen fluoride removed is inadequate.

Art Unit: 1754

However this temperature range is only for the reaction mixture after the inert gas addition, not for the taught concentration by evaporation of the aqueous mixture at a temperature of about 50°C to about 150°C.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is (703) 308-2537. The examiner is on the increased flexitime program schedule and can normally be reached between 8AM and 6PM Monday through Friday. The FAX No. for After Final amendments is 703-872-9311; for all

Application/Control Number: 09/891780

Page 7

Art Unit: 1754

others it is 703-872-9310. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'SJBos', is positioned above the printed name.

Steven Bos
Primary Examiner
Art Unit 1754